

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Appln. Ser. No.:	Filed:	Inventor(s):	Atty Dkt:
US Nat'l Phase of JP01/00437	herewith	S. YOSHIDA	0694-149
Title: Magnetic Substnace with Maximum Complex Permeability in Quasi-Microwave Band and Method for Production of the Same			

Asst. Comm'r for Patents
Washington, D.C. 20231-0001

Preliminary Amendment

Dear Sir:

In connection with the above-identified application filed herewith, and prior calculation of the filing fee or an examination on the merits, please amend the application as follows, the amendments shown in marked-up form in the Appendix attached hereto.

IN THE CLAIMS:

1. A magnetic substance of a magnetic composition comprising M, X and Y, wherein M is a metallic magnetic material selected from the group consisting of Fe, Co, Ni, and two or more thereof, X being element or elements other than M and Y, and Y selected from the group consisting of F, N, O, and two or more thereof, which is characterized in that said M-X-Y magnetic composition has a concentration of M in the composition so that said M-X-Y magnetic composition has a saturation magnetization of 35-80% of that of the metallic bulk of magnetic

material comprising M alone, said magnetic composition having the maximum μ''_{\max} of complex permeability μ'' in a frequency range of 0.1-10 gigahertz (GHz).

4. The magnetic substance according to claim 2], wherein said magnetic composition has a DC specific resistance of 100-700 $\mu\Omega\cdot\text{cm}$.

7. The magnetic substance according to claim 5, wherein said magnetic composition has a DC specific resistance of 500 $\mu\Omega\cdot\text{cm}$ or more.

8. The magnetic substance according to any one of claim 1, wherein X is selected from the group consisting of C, Bi, Si, Al, Mg, Ti, Zn, Hf, Sr, Nb, Ta, rare-earth metals, and two or more thereof.

9. The magnetic substance according to claim 1, wherein said metallic magnetic material M is distributed as granular grains in a matrix composition consisting of X and Y.

11. The magnetic substance according to claim 1, wherein said magnetic composition has an anisotropy field of 600 Oe or less.

12. The magnetic substance according to claim 1, wherein said magnetic composition is a composition represented by a formula of $\text{Fe}_\alpha\text{-Al}_\beta\text{-O}_\gamma$.

13. The magnetic substance according to claim 1, wherein said magnetic composition is a composition represented by a formula of $\text{Fe}_\alpha\text{-Al}_\beta\text{-O}_\gamma$.

14. The magnetic substance according to claim 1, wherein said magnetic composition is a thin film formed by sputtering process.

15. The magnetic substance according to claim 1, wherein said magnetic composition is a thin film formed by vapor deposition process.

16. The magnetic substance according to claim 1, which is formed as a plate having a thickness of 0.3-20 μcm for use as a high frequency noise suppressor.

REMARKS

Entry of the foregoing amendments is requested.

The phraseology of Claim 1 has been amended follow U.S. patent practice. The multiple dependencies of the PCT claims have been changed to be single dependencies. No new matter is presented.

Respectfully submitted,



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APPENDIX SHOWING MARK-UPS OF AMENDMENTS

1. A magnetic substance of a magnetic composition comprising M, X and Y, wherein M is a metallic magnetic material selected from the group consisting of Fe, Co, [and/or] Ni, and two or more thereof, X being element or elements other than M and Y, and Y [being] selected from the group consisting of F, N, [and/or] O, and two or more thereof, which is characterized in that said M-X-Y magnetic composition has a concentration of M in the composition so that said M-X-Y magnetic composition has a saturation magnetization of 35-80% of that of the metallic bulk of magnetic material comprising M alone, said magnetic composition having the maximum μ''_{\max} of complex permeability μ'' in a frequency range of 0.1-10 gigahertz (GHz).

4. The magnetic substance according to claim 2 [or 3], wherein said magnetic composition has a DC specific resistance of 100-700 $\mu\Omega\cdot\text{cm}$.

7. The magnetic substance according to claim 5 [or 6], wherein said magnetic composition has a DC specific resistance of 500 $\mu\Omega\cdot\text{cm}$ or more.

8. The magnetic substance according to [any one of claims 1-7] claim 1, wherein X [being] is selected from the group consisting of C, Bi, Si, Al, Mg, Ti, Zn, Hf, Sr, Nb, Ta, [and/or] rare-earth metals, and two or more thereof.

9. The magnetic substance according to [any one of claims 1-8] claim 1, wherein said metallic magnetic material M is distributed as granular grains in a matrix composition consisting of X and Y.

11. The magnetic substance according to [any one of claims 1-10] claim 1, wherein said magnetic composition has an anisotropy field of 600 Oe or less.

12. The magnetic substance according to [any one of claims 1-11] claim 1, wherein said magnetic composition is a composition represented by a formula of $\text{Fe}_\alpha\text{-Al}_\beta\text{-O}_\gamma$.

13. The magnetic substance according to [any one of claims 1-11] claim 1, wherein said magnetic composition is a composition represented by a formula of $\text{Fe}_\alpha\text{-Al}_\beta\text{-O}_\gamma$.

14. The magnetic substance according to [any one of claims 1-13] claim 1, wherein said magnetic composition is a thin film formed by sputtering process.

15. The magnetic substance according to [any one of claims 1-13] claim 1, wherein said magnetic composition is a thin film formed by vapor deposition process.

16. The magnetic substance according to [any one of claims 1-15] claim 1, which is formed as a plate having a thickness of 0.3-20 μcm for use as a high frequency noise suppressor.